

vantageous for bilateral or recurrent herniorrhaphy. The exact role of minimal-access or closed herniorrhaphy remains to be defined by randomized prospective trials.

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Treatment of Superficial Venous Insufficiency of the Legs

VENOUS DISORDERS are among the most common conditions seen and treated by medical practitioners, and duplex and color ultrasound examinations have vastly simplified clinical venous investigations. High-resolution ultrasonography is expanding the knowledge of the anatomic structure of telangiectasias and cutaneous venous blemishes, which is allowing more effective treatment by precise sclerotherapy. Cutaneous blemishes and telangiectasias do not require noninvasive evaluation.

Success in treating venous insufficiency depends on the realization that eliminating nonworking venous segments is crucial. Thus, routine saphenous stripping has been replaced by the limited removal of precisely defined incompetent segments. Often this is done by clever saphenous inversion techniques. To this is added the removal of varicose clusters with stab avulsion. Developments in instrumentation now allow the removal of varicosities through 1- and 2-mm incisions placed in skin lines. This improves the results of varicectomy while cutting its cost through avoiding the use of surgical facilities, general anesthesia, and recovery rooms.

Advances in ablating symptomatic telangiectatic blemishes by sclerotherapy now supplement minor surgical techniques. Although not recognized by third-party insurance carriers, cutaneous telangiectatic blemishes are frequently symptomatic. Success in treating these lesions has been achieved in this country by diluting available sclerotherapeutic agents. The most common of these agents is administered in 0.1% to 0.25% concentration rather than as supplied as a 3% solution. In other countries, the almost uniform use of polidocanol (not approved for use in the United States) in sclerotherapy has led to clinical trials that will eventually allow its use here.

The role of activated leukocytes in producing lipodermatosclerosis in limbs called postphlebitic in the past is being investigated. As these investigations go on, treatment with available pharmacologic medications is ameliorating severe problems of venous insufficiency. Pentoxifylline, in particular, has been found in a multi-institutional prospective trial to enhance the healing of venous ulcerations.

There is no doubt that other options for treatment will be explored. In addition, we can anticipate the application of evolving laser therapy to extend treatment to depths of 1 to 22 mm. This can now be done without producing pain or cutaneous changes.

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Video-Assisted Surgical Techniques in Infants and Children

ALL SURGICAL SPECIALTIES have experienced rapid growth in video-assisted techniques in the past five years, and pediatric surgery is no exception. The growing role of video technology in surgical procedures is related to the availability of equipment that provides an adequate magnified image through small incisions or endoscopes. Cameras smaller than the human palm, linked with telescopes that employ the Hopkins rod lens technology, deliver an image that is true color, magnified, and well focused.

Rigid and flexible endoscopes have been used for a number of diagnostic and therapeutic purposes in children. The application and success of these techniques have been limited in smaller children and infants by poor-quality images. Telescopes and flexible endoscopes now employ a series of lenses or fiber-optic cables to deliver a satisfactory image to a high-quality television monitor even in small instruments.

Diagnostic endoscopic procedures include the assessment of vocal cord function and the presence of tracheomalacia, vascular rings, tracheoesophageal fistulae, gastroesophageal reflux, and many other conditions of the airway and upper and lower gastrointestinal tracts. Video-assisted techniques permit still and video recordings of findings and documentation for comparison of patients' progress on reexaminations and assist with therapeutic interventions.

Video-assisted exploration of the chest and mediastinum has both diagnostic and therapeutic benefits for children. Patients must be anesthetized and supported by positive pressure ventilation through a double-lumen endotracheal tube. The anesthesiologist may then collapse the lung on the side to be examined to allow visualization without injuring the lung. Thoracoscopic technique is limited to children weighing 25 kg and more because of the need for a double-lumen endotracheal tube. In many cases several incisions equivalent to chest tube sites are substituted for the morbidity of a formal thoracotomy.

Cholecystectomy is much less commonly indicated in children and is usually associated with liver disease or hereditary anemia, such as sickle cell disease, thalassemia, or spherocytosis. These children may be treated by video-assisted techniques similar to those in adults. A direct fascial cut-down technique is used in a 10-mm periumbilical incision to place the camera port and to insufflate the abdomen using carbon dioxide. The telescope is then introduced and an additional 10-mm port